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(FILE 'USPAT' ENTERED AT 15:34:57 ON 02 DEC 94)

L1 249651 S CONTAINER# OR RECEPTACLE#

L2 201399 S PAPER

L3 95325 S L1/CLM

L4 27709 S L2/CLM

L5 77523 S FABRIC

L6 1947 S L3 AND L4

L7 23508 S L5/CLM

L8 63 S L6 AND L7

L9 167791 S ADHESIVE#

L10 40464 S L9/CLM

L11 14 S L8 AND L10

L12 94129 S BULK
E PAPPAS, R/IN

L13 1 S E4
E MILNER, G/IN

=> s 12 and 114

'L14' NOT FOUND

=> s 12 and 113

L14 0 L2 AND L13

=> s 112(2a)11

L15 1654 L12(2A)L1

=> s 115 and 14 and 17

L16 4 L15 AND L4 AND L7

=> d cit 116 1-4 kwic

1. 5,089,324, Feb. 18, 1992, Press section dewatering fabric; Graham W. Jackson, 428/234; 139/383A, 383AA [IMAGE AVAILABLE]

US PAT NO: 5,089,324 [IMAGE AVAILABLE]

L16: 1 of 4

SUMMARY:

BSUM(7)

Flattened . . . is used, or example in carpet backing (U.K. Patent 1,362,684 assigned to Thiokol Chemical Corporation) and in geotextiles, webbing, and **bulk containers** (Langston et al., U.S. Pat. No. 4,643,119), in a woven fabric using a fiber-reinforced flat tape as both warp and. . .

CLAIMS:

CLMS(1)

What is claimed is:

1. A woven dewatering **fabric** for the press section of a **paper** making machine having a **paper** side, a machine side, opposed side edges, the **fabric** having a cross-machine direction extending between the side edges and a machine direction extending perpendicularly to the cross-machine direction, and having a **fabric** weave pattern that provides long exposed floats on the **paper** side of the **fabric** of a monofilament warp yarn having a flattened cross-section with an aspect ratio of at least 1.5:1, having a fill. . . the exposed floats of the

flattened monofilaments expressed by the formula of a/b wherein:

- (i) "a" represents the number of **paper** side surface layer weft yarns in a single weave pattern repeat of a flattened monofilament warp which are underneath and in contact with that warp;
 - (ii) "b" represents the total number of **paper** side surface layer weft yarns in the single weave pattern repeat;
- and further wherein for a majority of the long. . .

CLAIMS:

CLMS(2)

2. A dewatering **fabric** according to claim 1 wherein the woven **fabric** is a single layer **fabric**.

CLAIMS:

CLMS(3)

3. A dewatering **fabric** according to claim 1 wherein the woven **fabric** is a double layer **fabric**.

CLAIMS:

CLMS(4)

4. A dewatering **fabric** according to claim 1 additionally including a porous layer attached to the **paper** sides of the woven **fabric**.

CLAIMS:

CLMS(5)

5. A dewatering **fabric** according to claim 1 additionally including a porous layer attached to both sides of the woven **fabric**.

CLAIMS:

CLMS(6)

6. A dewatering **fabric** according to claim 1 additionally including a single batt of staple fibers attached to the **paper** side of the woven **fabric**.

CLAIMS:

CLMS(7)

7. A dewatering **fabric** according to claim 6 additionally including a single batt of staple fibers needled to the **paper** side of the woven **fabric**.

CLAIMS:

CLMS(8)

8. A dewatering **fabric** according to claim 1 additionally including a batt of staple fibers attached to both the **paper** side and the machine

side of the woven **fabric**.

CLAIMS:

CLMS(9)

9. A dewatering **fabric** according to claim 8 additionally including a batt of staple fibers needled to both the **paper** side and the machine side of the woven **fabric**.

CLAIMS:

CLMS(10)

10. A dewatering **fabric** according to claim 7 wherein the batt of staple fibers is needled to the woven **fabric** and wherein the batt fibers are oriented substantially in a direction substantially perpendicular to the direction of the flattened monofilaments.

CLAIMS:

CLMS(11)

11. A dewatering **fabric** according to claim 7 wherein the batt of staple fibers is needled to the woven **fabric** and wherein the batt fibers are oriented substantially in a direction substantially parallel to the direction of the flattened monofilaments.

CLAIMS:

CLMS(12)

12. A dewatering **fabric** according to claim 9 wherein the paperside batt of staple fibers is needled to the woven **fabric** and wherein the batt fibers are oriented substantially in a direction substantially perpendicular to the direction of the flattened monofilaments.

CLAIMS:

CLMS(13)

13. A dewatering **fabric** according to claim 9 wherein the **paper** side batt of staple fibers is needled to the woven **fabric** and wherein the batt fibers are oriented substantially in a direction substantially parallel to the direction of the flattened monofilaments.

CLAIMS:

CLMS(14)

14. A dewatering **fabric** according to claim 1 wherein in the woven **fabric** the float ratio is from 5/8 to 9/10.

CLAIMS:

CLMS(15)

15. A dewatering **fabric** according to claim 1 wherein in the woven

****fabric**** the float ratio is from 3/4 to 7/8.

CLAIMS:

CLMS(16)

16. A dewatering ****fabric**** according to claim 1 wherein the fill factor for the flattened monofilaments at least 60%.

CLAIMS:

CLMS(17)

17. A dewatering ****fabric**** according to claim 1 wherein the fill factor for the flattened monofilaments at least 80%.

CLAIMS:

CLMS(18)

18. A dewatering ****fabric**** according to claim 1 wherein the fill factor for the flattened monofilaments is about 85%.

CLAIMS:

CLMS(19)

19. A dewatering ****fabric**** according to claim 1 wherein the aspect ratio for the flattened monofilaments is at least about 2:1.

CLAIMS:

CLMS(20)

20. A dewatering ****fabric**** according to claim 1 wherein the aspect ratio for the flattened monofilaments is in the range of from about 4:1.

CLAIMS:

CLMS(21)

21. A dewatering ****fabric**** according to claim 1 wherein the woven ****fabric**** is a closed endless loop in which the long exposed floats of flattened monofilament warps are oriented in the cross-machine. . .

2. 5,089,325, Feb. 18, 1992, Partially coated fabric sheet; James F. Covey, 428/246, **248**, 250, 260, 263, 408, 922 [IMAGE AVAILABLE]

US PAT NO: 5,089,325 [IMAGE AVAILABLE] L24: 2 of 23

US-CL-CURRENT: 428/246, **248**, 250, 260, 263, 408, 922

CLAIMS:

CLMS(8)

8. The fabric of claim 6 further comprising a **paper** backing sheet adhered to the fabric with rubber cement on the unplated portion.

CLAIMS:

CLMS(10)

10. The product made by the process of claim 9 wherein the backing sheet is made of **paper** and rubber cement is used to temporarily adhere the backing sheet to the upper side of the fabric sheet.

7. 4,656,082, Apr. 7, 1987, Laminate material with fibrous inner layer; Stanley A. Goodacre, et al., **428/248**, 249, 251, 252, 285, 286 [IMAGE AVAILABLE]

US PAT NO: 4,656,082 [IMAGE AVAILABLE]

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US-CL-CURRENT: **428/248**, 249, 251, 252, 285, 286

CLAIMS:

CLMS(1)

The . . .

inner layer comprising fibrous material adhesively bonded to each of the next adjacent layers; with each next adjacent layer being **paper** or metal foil, the laminate having at least one layer of **paper**, with at least one outermost layer being metal foil; said inner layer comprising fibrous material having a density of from. . .

CLAIMS:

CLMS(2)

2. A laminate material according to claim 1, wherein at least one of the next adjacent layers is Kraft **paper**.

CLAIMS:

CLMS(16)

16. A laminate material according to claim 14 wherein at least one adjacent layer comprises Kraft **paper**, with the inner layer being intermediate respective outermost layers each comprising aluminium foil.

CLAIMS:

CLMS(17)

17. A laminate material according to claim 16, wherein each adjacent layer comprises Kraft **paper**.

CLAIMS:

CLMS(19)

19. A laminate material according to claim 16, wherein one adjacent layer comprises Kraft **paper**, the other adjacent layer comprising a said outermost layer.

16. 4,327,143, Apr. 27, 1982, Moisture resistant laminates impregnated with an impregnating composition comprising epoxy resin and a dicyandiamide derivative; William M. Alvino, et al., 428/236; 156/307.4, 307.5, 330; 174/259; 427/385.5, 386, 389.9, 394; **428/248**, 251, 901 [IMAGE AVAILABLE]

US PAT NO: 4,327,143 [IMAGE AVAILABLE] L24: 16 of 23
US-CL-CURRENT: 428/236; 156/307.4, 307.5, 330; 174/259; 427/385.5, 386, 389.9, 394; **428/248**, 251, 901

CLAIMS:

CLMS(12)

12. The laminate of claim 10, wherein at least one cellulose **paper** sheet is disposed between the cured epoxy resin impregnated sheets.